IWA-250

owners manual

MONITOR AUDIO®
design for sound

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Introduction

Thank you for your purchase of the IWA-250 subwoofer amplifier, which has been designed and constructed using quality systems and materials to provide years of enjoyment, reliability and pride of ownership.

Music is and should be a natural enhancement of life. It stimulates the imagination, changes your mood, helps you relax, and provides endless hours of entertainment. At Monitor Audio we pride ourselves in attempting to make the listening experience as close as possible to the original 'music' production.

Please read through this manual to familiarise yourself with any safety advice and how to set up your subwoofer amplifier to achieve the very best listening experience.

Please retain this manual for future reference.

Installation

Leave the amplifier unplugged from the mains until the installation procedure is completed.

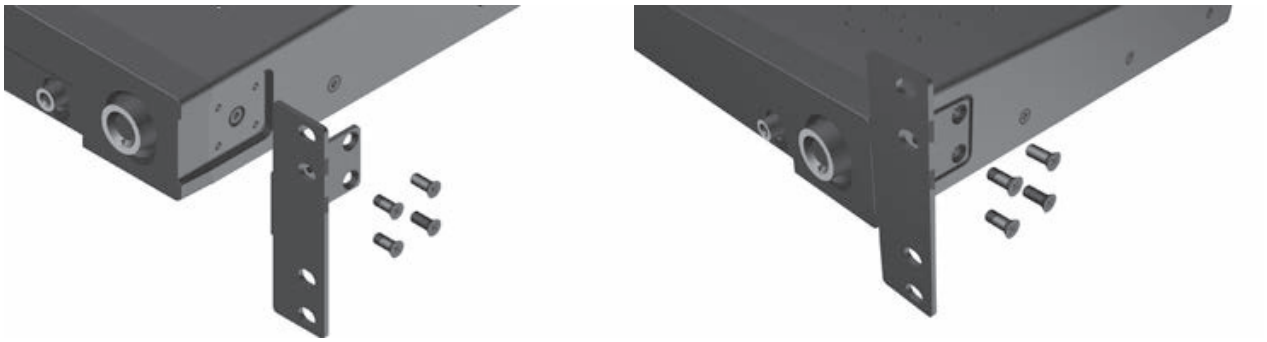
If you are going to mount the amplifier on a shelf/ cabinet, fit the self adhesive rubber feet (illustrated below). If you are rack mounting it, please refer to the next section.

Fitting Rubber Feet

Fitting to Rack

If installing in a rack or communications cabinet, you need to fit the supplied brackets first.

NOTE: When fitting to a rack, please ensure there is space above and below to allow for suitable airflow.



Initial Set Up

The optimal control settings will depend entirely on your system configuration, room environment and personal tastes. However, for initial trials set the controls as follows:

Volume Control	Should be set to approximately 10 o'clock.
Frequency Control	Should be set to the approximate frequency depending on main speakers when using the L & R Line Level Inputs.
EQ	Should be set to Movies when connecting to an AV receiver or Music when connecting to a stereo amplifier.
Cabinet	Should be set depending on whether or not you are using the Monitor Audio back box or not.
Phase Control	Should be set to zero degrees.
Mode Switch	Should be set to 'on'.
12v Trigger (optional)	Do not connect at this stage.
Input	Connections from the amplifier can be made at this stage before the power is connected to the subwoofer. Refer to items 2, 3 & 4 on page 4.

Never connect or disconnect the RCA input/ output leads with the amplifier switched on.

Set Up

Once the input cables are connected and the controls are set in accordance with the initial set-up procedure above, the amplifier can be connected to the mains power supply and switched on at the mains power switch.

Do not play any music or movies at this stage as the auto set up of the AV amp (if using one) will need to be run. If your amp has an auto set up procedure, run this now ensuring the IWA-250 is turned on. If you do not have an auto set up or are using a stereo amp connected to the left and right inputs, set the crossover in accordance with your main speakers.

When the auto set up is complete, check that the subwoofer settings on the AV amp are correct. The crossover frequency should be roughly 80Hz (although this may vary depending on the other speakers within the system) and the level should be no more/ less than +/- 3dB. If not we would suggest adjusting accordingly.

Now play a variety of music/ film excerpts that you are familiar with and adjust the level of the amplifier to a point where it integrates with the rest of the system and to where you are happy. The volume of the amp can then be adjusted to an average listening level once you are sure everything is working correctly to double check your sub woofer level settings.

Experiment with the EQ switch as well to get the perfect sound for your environment and tastes.

Amp Panel & Controls

1. 12 Volt Trigger Input ~ Centre Pin = +12Vdc
   For external power control from AV amplifier/ receiver to the IWA-250. Monitor Audio recommend using this function and a lead is supplied. A 12 volt signal is supplied by the AV amp/receiver and tells the IWA-250 to turn on from standby mode. This allows a more accurately controlled auto on/off function, and is far more energy efficient. When using the 12v trigger, the Mode Switch (8) can be in any position, for it to function correctly.

2. RCA Stereo Inputs (Left & Right)
   This is the method of signal input when using a stereo amplifier system, connection can be provided by a pair of high-quality signal cables from the pre-out section of an amplifier. The crossover frequency will need to be set if using this method of connection. If using the IWA-250 Series speakers set the crossover dial to approximately 80Hz. This may vary depending on room and tastes. **Note:-** cable lengths should not exceed 10 metres to avoid interference from other electrical appliances.

3. LFE Input (RCA Type)
   This input is to be used when connecting the amplifier to an AV amplifier/ receiver. When using the LFE input, the crossover frequency dial is not used. This is due to the crossover function being controlled by the AV amplifier/ processor to which it is connected.

4. Balanced Level Input
   The balanced input is for use when connecting to a high end amplifier that has balanced outputs and also advisable when running long runs of cable to avoid interference.

5. Speaker Output
   The speaker connections are a mono output, so even if feeding with a stereo signal the outputs on the speaker connections will be the same. It is not possible to bridge the outputs, so if using a single subwoofer, connect to EITHER the left hand pair of terminals or the right hand pair.

6. Mains Voltage Selector
   This is factory set to your country's mains voltage specification. Do not attempt to adjust this as this may lead to permanent damage to the product and even the risk of fire. There is a clear plastic cover over the selector to prevent accidental adjustment.

7. IEC Mains Power Connector/ Fuse Location
   The amplifier is supplied with a two-pin mains input socket for connection to the mains supply. Use ONLY the appropriate IEC mains lead provided with the product. Also fitted is an external mains fuse. If this fuse blows during operation a spare fuse is provided within the fuse holder for replacement. If you wish to change the fuse, you can do this by removing the IEC mains lead and carefully levering out the original fuse from its holder below the IEC mains input socket

(7a). If the fuse blows again it is advisable to seek help from an authorised service agent. DO NOT attempt to re-fit a further fuse as this could result in serious damage to the amplifier unit.

8. Mains Power Switch
   The mains power switch should be switched to the 'Off' position when the IWA-250 will not be used for extended periods. The switch must be in the 'On' position for the subwoofer to function.

9. Power LED
   The LED indicates whether the unit is in standby mode or operational. It will be illuminated red when in standby, and green when operational.

10. EQ Switch
    This switch tailors the bass response of the subwoofer to your tastes. There are three settings: Music, Movies and Impact. Movie mode provides a relatively flat response down to 35Hz. Music mode is -2dB down on Movie mode but goes lower, all the way down to 30Hz. Impact mode is +3dB up on Movie mode and comfortably goes down to 40Hz.

11. Cabinet
    Select the appropriate position for if a cabinet is being used or not.

12. Phase Control Switch
    The Phase Control is used to synchronise any delay between the subwoofer and main/satellite speakers. When the subwoofer is in phase with the main/satellite speakers the sound should be full bodied. Sit in a normal listening position whilst adjusting the phase switch. Help from another person may be required. When set correctly the location of the subwoofer should be almost undetectable. Experimentation is advised in order to achieve optimum results. However it should be noted that in most cases the phase control switch should be set to 0 degrees, especially when using a digital AV processor or AV receiver amplifier.

13. Power Mode Switch
    With the switch in the 'On' position, the amplifier is permanently switched on under all conditions. In the 'Auto' position, the amplifier will automatically switch on when an input signal is received. It will remain on for a period of 15 minutes without receiving a signal before switching into standby mode until a signal is received once more. Place it in the 'Trigger' position when using the 12v trigger from the AV amp to the IWA-250

    Additional Notes on the Auto On Function

    When using the auto on feature, the amplifier will "lock" onto the input it was activated by. In most cases, when using either stereo, LFE or balanced input connection this will not matter. However, if using more than one connections, you will not be able to toggle between inputs until the amplifier has gone into standby mode. This can be done manually by turning it off and on again, or by letting it time out (15 mintues) before changing the inputs over.

14. Crossover Frequency Control
    The crossover frequency control only operates when using the RCA stereo input (2) and is used to set the upper frequency limit (low pass) of the amplifier. The crossover control should be set in accordance with the size or bass output of the main/satellite speakers. .

15. Volume Control
    This control allows the level or volume to be adjusted in order to achieve a balanced overall sound. To use this facility you will need to play a selection of familiar music or film excerpts. Start with the volume at approx 10 o'clock and increase the level control until a balanced sound is established. If using an AV processor or AV receiver amplifier, the system can be adjusted by the test tone function within the set-up features. (Refer to the set up section in the AV processor or AV receiver amplifier user guide.) When the subwoofer is correctly set-up, you should not be able to identify its location easily in the room.

Specifications

	IWA-250
System Format	Active sub-woofer amplifier
Low Frequency Limit	25Hz
Upper Frequency Limit	Variable 40 – 120 Hz @ 24dB/Octave
Amplifier Power Output	250W @ < 1% THD+N
Drive Unit Parameters	4 - 8 Ohm Nominal Impedance
Amplifier Classification	Class D amplifier with Switch mode power supply (SMPSU)
Cabinet Switch	For use when using the dedicated back box
EQ Switch	Music/ Movie/ Impact
Phase Control	0 & 180 degrees
Auto Sensing	Line Level > 3.5mV
Input Level Requirements	Standby after approximately 15 minutes if no signal sensed
Input Impedance	> 20K Ohms
Mains Input Voltage	AC 110 - 120 V ~ 50/60Hz AC 220 - 240 V ~ 50/60Hz (Factory Region Preset)
Dimensions (H x W x D)	43.7 x 432 x 263mm 1 3/4 x 17 x 10 3/8 Inch
Connections	LFE in (Stereo RCA and Balanced), 12v Trigger in (3.5mm mono mini-jack), left and right speaker output
12v Trigger Input	5 - 12v via 3.5mm mono mini-jack socket
Power Consumption	Standby: < 0.5W (ErP approved) Typical Idle: < 10W Max Rated: 200W
Weight (unpacked	4Kg (8lb 12oz)

Monitor Audio reserves the right to alter specifications without notice.

Trouble Shooting

Should you experience any technical, or set-up problems with your amplifier please check the Trouble Shooting guide below:

My amplifier will not turn on/ no power.

- Is the LED illuminated on the front of the unit? If not, check your mains lead is properly connected both at the amplifier and at the mains outlet. Also check the fuse of the amplifier and mains plug (where fitted).
- Is the LED red? If so, you have power going to the unit. It could be that there is no signal, or the 12v trigger is connected and the source not turned on (see below).
- Have you got the 12v trigger connected? If so, the amplifier will not power up until the source is turned on.
- Is the unit receiving a signal (12v trigger not being used)? Is the Power Mode Switch in Auto or On position, and signal source turned on? Try adjusting the volume level of the source.

If it still does not turn on/ power up, please contact your local dealer/ distributor or Monitor Audio immediately.

No sound from amplifier.

- Is the LED on the front red or green? If it is red, then the unit hasn't actually turned on. See above suggestions. If it is green, then your unit is powered up and turned on. Check further suggestions below.
- Are the signal leads connected correctly? Check these. If possible, check by replacing with a second, working set.
- Is the volume level just very low? Try adjusting the volume on the source and the IWA-250.
- Have you tried switching input's? If changing from LFE to Stereo (or vice versa), you need to power down the sub woofer first. It will stay "locked" onto the input that activates it.

If it still does not output a signal, please contact your local dealer/ distributor or Monitor Audio immediately.

Owner Information

Product Details

Model: **IWA-250** .....

Product Serial No: .....

Date of Purchase: .....

Dealer Details

Dealer Name: ……

Address: ……

Town, Post code, Country: ……

e-mail address: ……

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Designed in the United Kingdom

Version 2. 2013

MONITOR AUDIO®
design for sound

IMPORTANT SAFETY INSTRUCTIONS

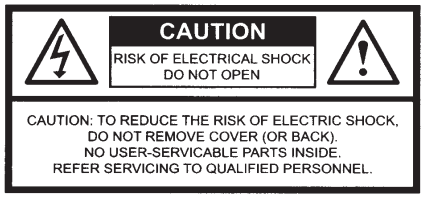
GB - SAFETY INSTRUCTIONS
FR - CONSIGNES DE SÉCURITÉ
IT - ISTRUZIONI PER LA SICUREZZA
DE - SICHERHEITSANWEISUNGEN
ES - INSTRUCCIONES DE SEGURIDAD
PT - INSTRUÇÕES DE SEGURANÇA
NL - VEILIGHEIDSINSTRUCTIES
CH - 安全說明
RU - ИНСТРУКЦИИ ПО ТЕХНИКЕ БЕЗОПАСНОСТИ
RU - УСЛОВИЯ ГАРАНТИИ

SUB WOOFERS

WARNING

- **TO PREVENT FIRE OR SHOCK HAZARD, DO NOT USE THIS PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE**
- **TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE**
- **TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE PLUG TO WIDE SLOT AND FULLY INSERT.**

This lightning flash with an arrow head symbol, within an equilateral triangle, is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to the persons.


CAUTION
RISK OF ELECTRICAL SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED PERSONNEL.

Warning: To reduce the risk of electric shock, do not remove cover (or back), no user-serviceable parts inside. Refer servicing to qualified service personnel.

This exclamation point within an equilateral triangle is intended to alert the user to presence of important maintenance (servicing) instructions in the literature accompanying the appliance.

This is a "Class II", "double insulated apparatus". This apparatus must NOT have a safety connection to Earth.

IMPORTANT SAFETY INSTRUCTIONS

1. **Read these instructions**.
2. **Keep these instructions.**
3. **Heed all warnings.**
4. **Follow all instructions.**
5. **Do not use this apparatus with water.**
6. **Clean only with a dry cloth.** Great care and attention has gone into the materials chosen to produce the product. A gentle wipe with a dry, clean cloth is all that is required to remove any dust. Treat it as you would a fine piece of furniture because that is how they have been designed.
7. **Do not block any ventilation openings.** Install in accordance with Monitor Audio's instructions.
8. **Do not install near any heat source**, such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. **Do not defeat the purpose of the polarised or grounding type plug.** A polarised plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider blade or the third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.
10. **Protect the power cord from being walked on or pinched** particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. **Only use attachments/ accessories specified by Monitor Audio.**
12. **Use only with the cart**, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.

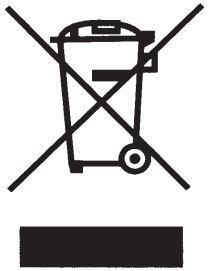
13. **Unplug this apparatus during lightening storms**, or when unused for long periods of time.
14. **Refer all servicing to qualified service personnel.** Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen onto the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.
15. **This apparatus shall not be exposed to dripping or splashing water** and that no object filled with liquids such as vases shall be placed on the apparatus.
16. **The appliance coupler is used as the disconnect device,** the disconnect device shall remain readily operable.
17. **This exclamation point within an equilateral triangle** is intended to alert the user to the presence of important maintenance (servicing) instructions in the literature accompanying the appliance.

18. **No naked flame sources,** such as lighted candles, should be placed on the apparatus

RE-CYCLING

Correct Disposal of Waste Electrical and Electronic Equipment (WEEE) by User in Private Households in the EU.

This symbol on the product or accessories indicates that they must not be disposed of with your household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. Instead it is your responsibility to dispose of your waste equipment by handing it over to a designated WEEE collection point for recycling. The separate collection and recycling of your waste equipment will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.



For more specific information about where you can take your equipment for recycling please contact your local city/council office, your local waste disposal service or the outlet where you purchased your product.

ROHS DECLARATION OF CONFORMITY

Directive 2011/65/EU of the European Parliament and of the Council on the reduction of the use of certain hazardous substances in electrical and electronic equipment, June 2011.

RoHS2
COMPLIANT
2011/65/EU

Background

The RoHS directive restricts the use of Lead (Pb), Cadmium (Cd), Mercury (Hg), hexavalent Chromium (CrVI), polybrominated biphenyl (PBB) compounds, and polybrominated diphenyl ether (PBDE) compounds in electrical and electronic equipment sold in the European Union.

GUARANTEE AND SERVICE

To validate your warranty please visit www.monitoraudio.com within 30 days of purchase.

When you register online you'll gain free entry to our monthly prize draw! What's more you'll be the first to hear about the great things happening at Monitor Audio, including new products and events!

This equipment has been fully tested prior to dispatch from the factory. Both the craftsmanship and the performance of this product is guaranteed against manufacturing defects for the period of **two years** from the date of purchase (see conditions below), provided that the product was supplied by an authorised Monitor Audio retailer under the consumer sale agreement. (The words 'consumer sale' shall be construed in accordance with section 15 of the supply of goods act 1973). Monitor Audio accepts no responsibility for defects arising from accident, misuse, abuse, wear and tear, modification or operation outside of that specified within this instruction manual. Neither will responsibility be accepted for damage or loss occurring during transit to or from the parties claiming under this guarantee.

This guarantee covers both labour and parts. The liability of Monitor Audio is limited to the cost of repair or replacement of the defective parts (at the discretion of Monitor Audio) and under no circumstances extends to consequential losses or damage.

CLAIMS UNDER THIS GUARANTEE

The equipment should be returned in its original packaging to the original supplier where possible, or to any other authorised Monitor Audio dealer. If it is not possible to return the equipment by hand, then it should be sent carriage prepaid via a reputable carrier. If the original packing is not available replacement packaging can be purchased from Monitor Audio.

If you have any difficulties complying with these requirements please contact us at the following address:

Customer Service
Monitor Audio Ltd.
24 Brook Road
Rayleigh
Essex, SS6 7XJ
England

Tel: +44 (0)1268 740580
Fax: +44 (0)1268 740589
Internet: www.monitoraudio.com
Email: info@monitoraudio.co.uk

This guarantee does not affect the statutory rights of the consumer under UK law.

DATA PROTECTION

We at Monitor Audio are committed to respecting the wishes and privacy of our customers. Any information you provide will be held in the strictest confidence and only used within the Monitor Audio organisation for the provision of services such as warranty claims or spare parts.

We may wish to contact you in the future to ensure you are happy with the products and standards of service we provide and to keep you up-to-date with the latest products and promotions we have to offer.

Should you wish not to be contacted by us either by post, e-mail or phone, please tick the box on the warranty form on the web site. Alternatively you can request not to be contacted in future by writing to Customer Service, at the address above.

EC Declaration of Conformity

We, Monitor Audio Ltd.
24 Brook Road
Rayleigh
Essex
SS6 7XJ
England

CE 12

Declare in own responsibility, that the Monitor Audio products described in this manual is in compliance with Technical Standards/ Council Directives:

(LVD) 2006/95/EC Low Voltage Directive
EN60065: 2002+A1: 2006 Safety requirements for mains operated electronic and related apparatus for household and similar use.

(EMC) 89/336/EEC Electro Magnetic Compatibility
EN55013: 08.90+A12:08.94+A13:12.96 Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment.

EN55020: 12.94+A11:12.96 Electro magnetic immunity of broadcast receivers and associated equipment.

EN61000-3-2: 04.95+A1:1998+A2:1998 Electro magnetic compatibility (EMC) – Part 3: Limits – Section 2: Limits for harmonic current emissions (equipment input current up to and including 16 Ampere per phase).

EN6100-3-3: 01.95 Electro magnetic compatibility (EMC) – Part 3: Limits – Section 3: Limits of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current up and including
16 Ampere per phase.

Signed by:

Name: D.S. Hartley

Position: Technical Director

Company: Monitor Audio Ltd

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Designed in the United Kingdom

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